

**APPENDIX B:**  
**Clean Copy of Claims on Appeal Following Entry of Amendment**



1. A method for detecting pregnancy in a bovine animal comprising:
  - (a) obtaining a sample from said animal; and
  - (b) contacting said sample with an antibody that binds immunologically to at least one pregnancy associated antigen (PAG), wherein said PAG is present in early pregnancy and absent at about two months post-partum; and
  - (c) detecting said PAG bound to said antibody;

whereby the presence of said PAG in said sample indicates that said animal is pregnant.
2. The method of claim 1, wherein said PAG is selected from the group consisting of PAG2, PAG4, PAG5, PAG6, PAG7 and PAG9.
3. The method of claim 1, wherein said sample is saliva, serum, blood, milk or urine.
4. The method of claim 3, wherein said sample is saliva.
5. The method of claim 3, wherein said sample is serum.
6. The method of claim 3, wherein said sample is blood.
7. The method of claim 3, wherein said sample is milk.
8. The method of claim 3, wherein said sample is urine.
10. The method of claim 1, wherein said detection comprises detection of bovine PAG (BoPAG) 2, BoPAG4, BoPAG5, BoPAG6, BoPAG7, BoPAG9, BoPAG 7v; BoPAG9v;

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BoPAG 15; BoPAG 16; BoPAG 17; BoPAG 18; BoPAG 19; BoPAG 20 or BoPAG 21 with polyclonal antisera.

11. The method of claim 1, wherein said detection comprises detection of bovine PAG (BoPAG) 2, BoPAG4, BoPAG5, BoPAG6, BoPAG7, BoPAG9, BoPAG 7v; BoPAG9v; BoPAG 15; BoPAG 16; BoPAG 17; BoPAG 18; BoPAG 19; BoPAG 20 or BoPAG 21 with a monoclonal antibody preparation.
12. The method of claim 1, wherein said detection comprises ELISA.
13. The method of claim 1, wherein said detection comprises RIA.
14. The method of claim 1, wherein said detection comprises Western blot.
30. The method of claim 1, further comprising detecting a second PAG in said sample.
31. The method of claim 30, further comprising detecting a third PAG in said sample.
32. The method of claim 12, wherein said ELISA is a sandwich ELISA comprising binding of a PAG to a first antibody preparation fixed to a substrate and a second antibody preparation labeled with an enzyme.
33. The method of claim 32, wherein said enzyme is alkaline phosphatase or horseradish peroxidase.
34. The method of claim 32, wherein said first antibody preparation is monoclonal.